

- 35 -

Beam Laydown for Hopped Satellite Downlink with  
Adaptable Duty Cycle

ABSTRACT OF THE DISCLOSURE

A power gated variable hop cycle beam laydown  
5 (700) manifests itself as first cells (C, D) supported  
by a first hop cycle, second cells (G, H) supported by  
a second hop cycle, and transition cells (E, F)  
supported by a transition hop cycle. The transition  
hop cycle uses power gating to transition the laydown  
10 (700) from cells (C, D) operating at the first hop  
cycle to cells (G, H) operating at the second hop  
cycle. To this end, the transition hop cycle power  
gates its downlink beam for a portion of time needed  
to reduce interference between nearby (e.g., adjacent)  
15 cells.